

CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A policy server in a communications network, the policy server comprising:

a pre-computation module~~[[.]]-identifying-that identifies~~ and explicitly ~~separating-separates~~ a plurality of policy conditions into passive conditions and triggering conditions, ~~grouping-groups~~ a plurality of policies having an identical triggering condition that results in an identical policy decision into a policy equivalency class, continuously ~~evaluating-evaluates~~ said policies based on changes in said passive conditions, and ~~scheduling-schedules~~ a prioritized evaluation based on at least one of demand and resources;

a scheduler ~~initiating-that initiates~~ said prioritized evaluation for said passive conditions and said triggering conditions, ~~wherein-uses~~ received events satisfying said passive conditions to determine policy-managed entity memberships with respect to the policy equivalency class, ~~thereby-prioritizing-prioritizes~~ the evaluation of the policy equivalency class based on demand for the policy equivalency class and available resources, and ~~wherein-arranges~~ said passive

conditions ~~are arranged according to a precedence ranking and~~ assigns a higher
priority to said policy equivalency class when said policy equivalency class is related
to one of said triggering conditions; ~~said policy equivalency class takes a higher~~
priority;

a triggering module ~~monitoring that monitors all of said triggering conditions~~
~~communication network events satisfying, wherein~~ the triggering condition that
corresponds to said policy equivalency class causes only member policies in said
policy equivalency class to be reevaluated;

a policy decision distribution mechanism ~~issuing that issues~~ the policy
decision upon detection of the triggering condition corresponding to the policy
equivalency class being satisfied, ~~and distributing~~ distributes the policy decision to
the policy equivalency class, ~~thereby enforcing and enforces~~ policies for policy-
managed entities that are members of said policy equivalent class; and

a policy repository ~~for storing that stores~~ the plurality of policies and the
policy decision.

2. (Original) The policy server claimed in claim 1, the policy server being
associated with a network management system providing support of one of policy-
based network management, and policy-based service provisioning.

1 3. (Canceled)

2

1 4. (Previously Presented) The policy server claimed in claim 1, wherein the
2 policy repository further comprises:

3 one of a database and a directory.

1 5. (Previously Presented) The policy server claimed in claim 1, wherein the
2 policy repository further comprises:

3 a policy condition management interface providing interaction with one of the
4 policies and policy conditions.

1 6. (Original) The policy server claimed in claim 1, the policy server being
2 further associated with a policy equivalency class repository for storing policy
3 equivalency class specifications.

1 7. (Previously Presented) The policy server claimed in claim 1, further
2 comprising:

3 a policy condition management interface providing interaction with one of the
4 policies and policy conditions.

8. (Currently Amended) A method of policy evaluation comprising:

grouping a plurality of policies having an identical triggering condition that results in an identical policy decision into a policy equivalency class;

identifying and explicitly separating a plurality of policy conditions into passive conditions and triggering conditions;

determining policy-managed entity membership with respect to the policy equivalency class;

receiving an event satisfying the triggering condition that corresponds to said policy equivalency class;

distributing the policy decision corresponding to said triggering condition for policy enforcement to policy-managed entity members of the policy equivalency class, wherein policies of the policy equivalency class resulting in said policy decision are:

continuously evaluating said policy decision based on changes related to said passive conditions; and

scheduling prioritized policy evaluation for policy decisions that correspond to said policy equivalent class based on demands for said policy equivalent class or available resources, wherein

arranging said passive conditions ~~are arranged~~ according to a precedence ranking; and

21 assigning a higher priority to the policy equivalency class when said policy
22 equivalency class is related to one of said triggering conditions, said policy
23 equivalency class takes a higher priority; and
24 monitoring all of said triggering conditions, wherein the triggering condition
25 that corresponds to said policy equivalency class causes only member policies in
26 said policy equivalency class to be reevaluated.

1 9. (Previously Presented) The method as claimed in claim 8, the method further
2 comprising:

3 changing a corresponding policy-managed entity's membership with respect
4 to the policy equivalence class for said triggering condition.

1 10. (Previously Presented) The method as claimed in claim 8, the method further
2 comprising:

3 monitoring events in a communications network.

1 11. (Canceled)

1 12. (Previously Presented) The method as claimed in claim 8, the method further
2 comprising:

changing a corresponding policy-managed entity's membership with respect
to the policy equivalence class for said passive conditions.

13. (Previously Presented) The method as claimed in claim 8, the method further
comprising:

prioritizing passive condition related policy evaluation based on a demand for
one of a policy and the policy equivalency class.

14. (Previously Presented) The method as claimed in claim 13, further
comprising:

determining a demand for the one of the policy and the policy equivalency
class based on a previous utilization frequency.

15. (Previously Presented) The method as claimed in claim 8, further comprising:
specifying a policy condition.

16. (Previously Presented) The method as claimed in claim 15, the method
further comprising:

designating the policy condition as either one of said triggering conditions or
said passive conditions.

1 17. (Previously Presented) The method as claimed in claim 16, the method
2 further comprising:

3 specifying one of a time-of-day event, a quality-of-service event, a source
4 available event, a source unavailable event, a broadcast start event, and an
5 information flow available event to be monitored as one of said triggering
6 conditions.

1 18. (Previously Presented) The method as claimed in claim 17, the method
2 further comprising:

3 logically combining events when identifying said triggering conditions.

1 19. (Previously Presented) The method as claimed in claim 16, the method
2 further comprising:

3 specifying one of a prepaid status event, a policy-managed entity on-line
4 event, a policy-managed entity off-line event, a policy-managed entity capability,
5 and a policy-managed entity interest in a service when identifying said passive
6 conditions.

1 20. (New) The policy server of claim 1, wherein the policy equivalency class
2 aggregates Internet Protocol (IP) addresses based upon whether credits are prepaid
3 and whether the IP addresses are available to receive content.

1 21. (New) The method of claim 8, wherein the policy equivalency class aggregates
2 Internet Protocol (IP) addresses based upon whether credits are prepaid and
3 whether the IP addresses are available to receive content.